Exercise 1 *The following is a rational function.*

$$g(x) = \frac{1}{x+5} + \frac{1}{x-5} + \frac{x^2-35}{x^2-25}.$$

How many zeros does this function have? $\boxed{1}$

Exercise 1.1 *It is at* $x = \boxed{-7}$.

Exercise 1.1.1 *Why is* $x = 5$ *NOT a zero of* g*?*

Multiple Choice:

(a) *Because* $g(5)$ *is a nonzero number.*

(b) *Because* $g(5) = 0$.

(c) *Because* $x = 5$ *is not in the domain of* g. ✓

Hint: *Make sure to check your possible solutions are actually solutions.*

Exercise 2 *The following is a rational function.*

$$h(x) = 1 - \frac{x^2-2x+1}{x^3+x^2-2x}.$$

How many zeros does this function have? $\boxed{0}$